# Note on Rates of Return for Domestic Nonfinancial Corporations: Revised Estimates for 1960–98

THE MOST RECENT COMPREHENSIVE revision of the national income and product accounts (NIPA's) has resulted in revisions to rates of return and related measures for domestic nonfinancial corporations.[1] This note presents the revised estimates. (Estimates for 1999 and revised estimates for 1997 and 1998 will be available after the upcoming annual revision of the NIPA's.)

1. See Shelby W. Herman, "Fixed Assets and Consumer Durable Goods," SURVEY OF CURRENT BUSINESS 80 (April 2000): 17–30; and Brent R. Moulton, "Improved Estimates of the National Income and Product Accounts for 1929–99: Results of the Comprehensive Revision," SURVEY 80 (April 2000): 11–16.

NOTE.—This note was prepared by Daniel Larkins.

According to the revised estimates, the rate of return to property was 9.6 percent in 1997 and 9.4 percent in 1998—the two highest rates in more than 25 years (table 1). Property's share of income was 19.3 percent in 1997 and 18.5 percent in 1998, both of which are well above the average level for the past three decades.

The revised and the previously published series are very similar over the entire period (chart 1). Both the revised rate of return and the previously published rate peaked in 1997 after rising 2.4 percentage points from a trough in 1992 (the first year of the current

**CHART 1**

**Rate of Return and Property Income's Share of Domestic Income, Domestic Nonfinancial Corporations, 1960–98**

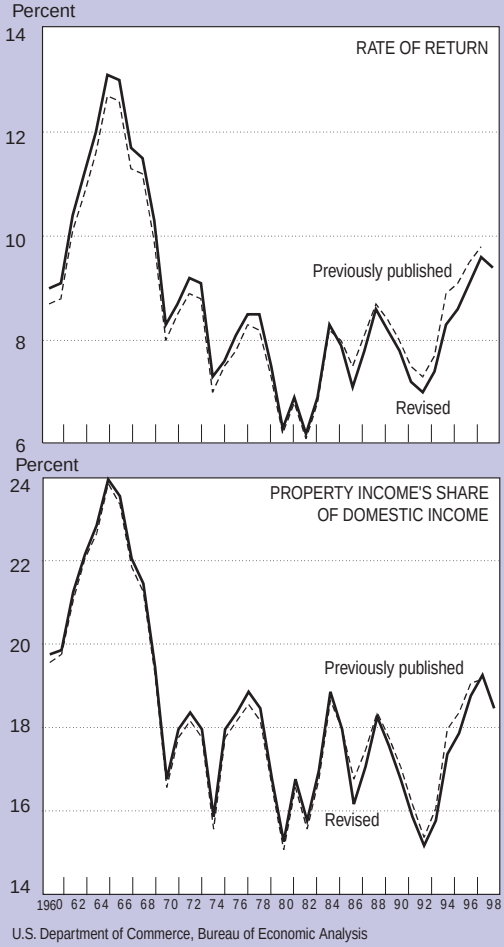


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**Table 1.—Rate of Return and Income Share, Domestic Nonfinancial Corporations, 1960–98**

[Percent]

| Year | Rate of return | | | Share of domestic income | | |
|---|---|---|---|---|---|---|
| | Domestic property income | | | Domestic property income | | |
| | Total | Profits from current production | Net interest | Total | Profits from current production | Net interest |
| | (1) | (2) | (3) | (4) | (5) | (6) |
| 1960 | 9.0 | 8.3 | 0.7 | 19.8 | 18.2 | 1.5 |
| 1961 | 9.1 | 8.3 | .8 | 19.9 | 18.2 | 1.7 |
| 1962 | 10.4 | 9.5 | .9 | 21.3 | 19.5 | 1.8 |
| 1963 | 11.2 | 10.3 | .9 | 22.2 | 20.5 | 1.8 |
| 1964 | 12.0 | 11.0 | 1.0 | 22.9 | 21.1 | 1.8 |
| 1965 | 13.1 | 12.1 | 1.0 | 24.1 | 22.2 | 1.9 |
| 1966 | 13.0 | 11.9 | 1.1 | 23.6 | 21.5 | 2.1 |
| 1967 | 11.7 | 10.4 | 1.2 | 22.1 | 19.7 | 2.3 |
| 1968 | 11.5 | 10.2 | 1.3 | 21.5 | 19.0 | 2.5 |
| 1969 | 10.3 | 8.7 | 1.6 | 19.5 | 16.5 | 3.0 |
| 1970 | 8.3 | 6.4 | 1.9 | 16.8 | 13.1 | 3.8 |
| 1971 | 8.7 | 6.9 | 1.8 | 18.0 | 14.3 | 3.7 |
| 1972 | 9.2 | 7.4 | 1.8 | 18.4 | 14.9 | 3.5 |
| 1973 | 9.1 | 7.3 | 1.9 | 18.0 | 14.3 | 3.7 |
| 1974 | 7.3 | 5.3 | 2.0 | 15.9 | 11.6 | 4.3 |
| 1975 | 7.6 | 5.9 | 1.7 | 18.0 | 14.0 | 4.1 |
| 1976 | 8.1 | 6.6 | 1.5 | 18.4 | 15.0 | 3.4 |
| 1977 | 8.5 | 7.0 | 1.5 | 18.9 | 15.5 | 3.4 |
| 1978 | 8.5 | 6.9 | 1.6 | 18.5 | 15.0 | 3.5 |
| 1979 | 7.5 | 5.7 | 1.7 | 16.8 | 12.9 | 3.9 |
| 1980 | 6.3 | 4.4 | 1.9 | 15.3 | 10.6 | 4.7 |
| 1981 | 6.9 | 4.8 | 2.1 | 16.8 | 11.7 | 5.1 |
| 1982 | 6.2 | 4.0 | 2.2 | 15.8 | 10.1 | 5.7 |
| 1983 | 6.9 | 4.9 | 2.0 | 17.0 | 12.1 | 5.0 |
| 1984 | 8.3 | 6.1 | 2.2 | 18.9 | 13.9 | 5.0 |
| 1985 | 7.9 | 5.8 | 2.2 | 18.0 | 13.1 | 4.9 |
| 1986 | 7.1 | 4.8 | 2.3 | 16.2 | 11.0 | 5.1 |
| 1987 | 7.8 | 5.5 | 2.3 | 17.1 | 12.0 | 5.1 |
| 1988 | 8.6 | 6.0 | 2.6 | 18.3 | 12.8 | 5.5 |
| 1989 | 8.2 | 5.2 | 3.0 | 17.6 | 11.2 | 6.4 |
| 1990 | 7.8 | 4.9 | 2.9 | 16.8 | 10.5 | 6.3 |
| 1991 | 7.2 | 4.6 | 2.6 | 15.9 | 10.2 | 5.8 |
| 1992 | 7.0 | 5.0 | 2.0 | 15.2 | 10.8 | 4.4 |
| 1993 | 7.4 | 5.6 | 1.8 | 15.8 | 12.0 | 3.9 |
| 1994 | 8.3 | 6.6 | 1.8 | 17.4 | 13.7 | 3.7 |
| 1995 | 8.6 | 6.8 | 1.8 | 17.9 | 14.2 | 3.7 |
| 1996 | 9.1 | 7.5 | 1.6 | 18.8 | 15.5 | 3.3 |
| 1997 | 9.6 | 7.9 | 1.7 | 19.3 | 15.9 | 3.4 |
| 1998 | 9.4 | 7.7 | 1.7 | 18.5 | 15.2 | 3.3 |
| Average: | | | | | | |
| 1960–69 | 11.1 | 10.1 | 1.0 | 21.7 | 19.6 | 2.0 |
| 1970–79 | 8.3 | 6.5 | 1.7 | 17.8 | 14.0 | 3.7 |
| 1980–89 | 7.4 | 5.1 | 2.3 | 17.1 | 11.9 | 5.2 |
| 1990–98 | 8.3 | 6.3 | 2.0 | 17.3 | 13.1 | 4.2 |

Source: Table 2.

NOTE.—Columns 1–3 are percentages of the net stock of produced assets (averages of end-of-year values for adjacent years) valued at current cost. Columns 4–6 are percentages of domestic income.

economic expansion). For 1960–97, the average revision without regard to sign is 0.3 percentage point.

The revised estimate of property's share of income and the previously published estimate also peaked in 1997 after rising from a 1992 trough; the revised estimate increased 4.1 percentage points over this period, and the previously published estimate increased 3.8 percentage points. For 1960–97, the average revision without regard to sign is 0.2 percentage point.

The rate of return is calculated as the ratio of "property income" to "produced assets." Property income is profits of domestic nonfinancial corporations with inventory valuation and capital consumption adjustments plus net interest (table 2).[2] "Produced assets" is the current-cost value for domestic nonfinancial corporations of the net stock of equipment and software and of structures and the replacement-cost value of inventories.[3]

Property's share of income is calculated as the ratio of domestic property income to domestic income; it is the portion of domestic income that is not labor income.

**Table 2.—Property Income of Domestic Nonfinancial Corporations and Related Series, 1960–98**

[Billions of dollars]

| Year | Domestic property income | | | Domestic income | Produced assets [1] |
|---|---|---|---|---|---|
| | Total | Profits from current production | Net interest | | |
| | (1) | (2) | (3) | (4) | (5) |
| 1960 | 44.6 | 41.1 | 3.5 | 225.6 | 499.3 |
| 1961 | 46.1 | 42.1 | 4.0 | 231.3 | 511.2 |
| 1962 | 54.1 | 49.6 | 4.5 | 254.1 | 528.6 |
| 1963 | 60.3 | 55.5 | 4.8 | 271.2 | 546.5 |
| 1964 | 67.2 | 61.9 | 5.3 | 293.7 | 575.5 |
| 1965 | 78.3 | 72.2 | 6.1 | 324.6 | 615.6 |
| 1966 | 84.4 | 77.0 | 7.4 | 358.2 | 681.8 |
| 1967 | 82.7 | 73.9 | 8.8 | 374.9 | 736.5 |
| 1968 | 88.4 | 78.3 | 10.1 | 411.5 | 803.1 |
| 1969 | 86.7 | 73.5 | 13.2 | 445.2 | 885.0 |
| 1970 | 76.5 | 59.4 | 17.1 | 454.6 | 963.9 |
| 1971 | 87.9 | 69.8 | 18.1 | 489.1 | 1,047.7 |
| 1972 | 100.3 | 81.1 | 19.2 | 546.2 | 1,135.6 |
| 1973 | 110.7 | 88.2 | 22.5 | 615.2 | 1,289.4 |
| 1974 | 105.0 | 76.7 | 28.3 | 660.1 | 1,591.8 |
| 1975 | 127.2 | 98.5 | 28.7 | 705.8 | 1,743.2 |
| 1976 | 147.4 | 119.9 | 27.5 | 802.4 | 1,921.0 |
| 1977 | 172.0 | 141.3 | 30.7 | 912.0 | 2,133.9 |
| 1978 | 192.8 | 156.5 | 36.3 | 1,043.8 | 2,425.6 |
| 1979 | 195.1 | 150.1 | 45.0 | 1,161.3 | 2,807.1 |
| 1980 | 190.8 | 132.7 | 58.1 | 1,247.8 | 3,212.9 |
| 1981 | 236.2 | 164.4 | 71.8 | 1,406.1 | 3,600.2 |
| 1982 | 228.8 | 146.3 | 82.5 | 1,444.9 | 3,788.9 |
| 1983 | 263.0 | 186.4 | 76.6 | 1,542.9 | 3,884.3 |
| 1984 | 330.6 | 242.9 | 87.7 | 1,752.1 | 4,124.0 |
| 1985 | 334.2 | 243.7 | 90.4 | 1,856.4 | 4,301.2 |
| 1986 | 309.1 | 210.7 | 98.4 | 1,912.9 | 4,429.5 |
| 1987 | 353.3 | 248.3 | 105.1 | 2,069.7 | 4,645.5 |
| 1988 | 412.2 | 288.6 | 123.6 | 2,256.2 | 4,931.4 |
| 1989 | 416.1 | 264.2 | 151.8 | 2,362.7 | 5,190.7 |
| 1990 | 414.6 | 258.5 | 156.0 | 2,467.3 | 5,440.1 |
| 1991 | 395.7 | 252.8 | 143.0 | 2,482.6 | 5,515.5 |
| 1992 | 392.2 | 278.9 | 113.3 | 2,586.5 | 5,687.4 |
| 1993 | 431.2 | 325.3 | 105.9 | 2,721.9 | 5,961.7 |
| 1994 | 510.4 | 402.5 | 107.9 | 2,940.6 | 6,308.3 |
| 1995 | 558.3 | 442.5 | 115.8 | 3,111.0 | 6,652.2 |
| 1996 | 617.8 | 509.1 | 108.7 | 3,284.9 | 6,956.5 |
| 1997 | 682.7 | 563.1 | 119.6 | 3,542.8 | 7,298.0 |
| 1998 | 700.1 | 576.7 | 123.5 | 3,790.6 | 7,653.4 |

1. Produced assets consist of structures, equipment and software, and inventories; they are valued at current cost at end of year. The estimates for structures and equipment and software are available on the BEA Web site; go to <bea.doc.gov/bea/dn1.htm> and click on "Data files for the 15 tables in the above article." The estimates for domestic nonfinancial corporations are in files "7kcu.txt" and "9kcu.txt". Inventories are from legal-form and industry detail underlying NIPA table 5.12.

NOTE.—Property income is profits from current production plus net interest. Profits from current production is corporate profits with inventory valuation adjustment and capital consumption adjustment. Profits after tax is also shown with inventory valuation adjustment and capital consumption adjustment.

*Q-type ratios*

"Tobin's-Q," or simply "Q," is the ratio of the valuation of assets in financial markets to the current-cost value of produced assets.[4] A value of Q above 1 indicates that newly produced physical assets may be purchased more cheaply than (the ownership claims to) existing assets. Such a situation may induce businesses to purchase newly produced physical assets instead of acquiring existing assets; alternatively, it may induce financial investors to reduce the prices they will offer for financial assets. A value of Q below 1 indicates that existing physical assets may be acquired more cheaply

2. Corporate profits and net interest are based on tabulations of "company" data rather than of "establishment" data. As a result, property income for domestic nonfinancial corporations includes income earned by financial establishments of those corporations; similarly, it excludes income earned by nonfinancial units of financial corporations. The gross product by industry estimates that appear elsewhere in this issue incorporate adjustments that convert company data to an establishment basis. At the total nonfinancial corporate level, these adjustments are very small and have not been carried through to the estimates of property income used in this article.

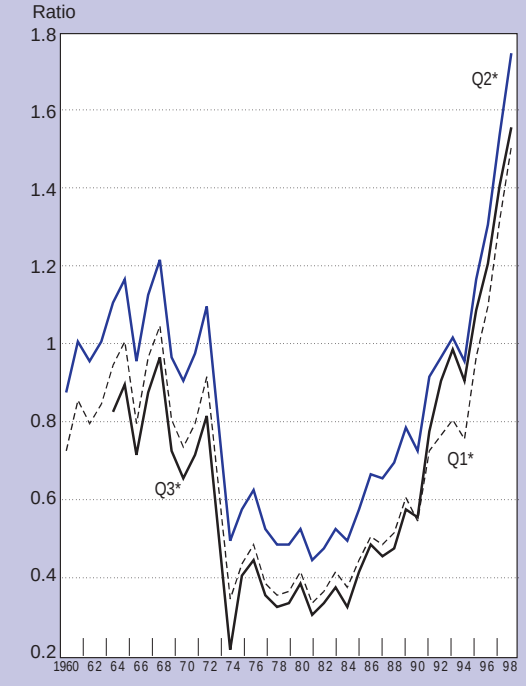
For a discussion of the industrial distribution of NIPA series, see Eugene P. Seskin and Robert P. Parker, "A Guide to the NIPA's," SURVEY 78 (March 1998): 42–43.

3. In other contexts, different definitions of these terms may be appropriate. For example, for the economy as a whole, some part of proprietors' income might be considered property income.

4. Q ratios may presuppose a "wealth" measure of produced assets, while the rate of return may presuppose a "productive" measure. For a discussion of these concepts, see Jack Triplett, "Depreciation in Production Analysis and in Income and Wealth Accounts: Resolution of an Old Debate," ECONOMIC INQUIRY 34 (January 1996): 93–115. If a geometric depreciation pattern is used (as it is for most of the items in BEA's estimate of produced assets), then the wealth measure and the productive measure are equal.

**CHART 2**

**Q-T ype Ratios, Domestic Nonfinancial Corporations, 1960–98**




*See text for definitions.

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than newly produced assets. Such a situation may induce businesses to purchase existing assets instead of newly produced physical assets; alternatively, it may induce financial investors to raise the prices they will offer for financial assets.

Q may be calculated in a variety of ways. However, ratios calculated from various definitions tend to display quite similar patterns over time, and in light of the difficulties involved in measuring both the numerators and the denominators, the patterns of movement may be more important than the levels of the ratios. Three variants of the measure for domestic nonfinancial corporations are shown in chart 2.

- Q1 is calculated as the market value of outstanding equity divided by the net stock of produced assets.
- Q2 differs from Q1 by adding the book value of outstanding corporate bonds to the numerator.
- Q3 differs from Q1 by adding an estimate of the market value of outstanding corporate bonds and net liquid assets to the numerator and by subtracting an estimate of the value of land from the numerator.[5]

All three Q-type ratios drop sharply in the early 1970's, stay relatively low until the early 1980's, and then increase sharply. Q2 and Q3 moved from below one to above one in 1995; Q1 did so in 1996. In 1998, all three ratios reached record levels. 

5. The Bureau of Economic Analysis is grateful to James Tobin for providing an unpublished paper describing a procedure for approximating the market value of bonds outstanding. In brief, the *book value* of bonds *issued* in year *t* is estimated as the change in the book value of bonds *outstanding* in year *t* plus the book value of bonds *issued* 10 years earlier (which are assumed to have matured in year *t*). In year *t*, the *market value* of bonds *issued* in earlier years is estimated from the book value of bonds issued in those years by calculating the present value of principal and (semiannual) coupons not yet paid on those bonds (discounted by the interest rate on 10-year Baa bonds in year *t*). Finally, the *market value* of bonds *outstanding* in year *t* is the sum of the market values of bonds *issued* in years *t*-9 through *t*. See, James Tobin and Dan Sommers, "Explanation of Revised Estimates of Tobin's 'q' Ratio, 1950–1997," (April 20, 1999), unpublished.

The financial data used in these calculations are from the Federal Reserve Board, *Flow of Funds Accounts of the United States*, Federal Reserve Statistical Release z.1 (Washington, DC: Board of Governors of the Federal Reserve System).